



TORQ Analysis of First-Line Supervisors/Managers of Production and Operating Workers to Inspectors, Testers, Sorters, Samplers, and Weighers

INPUT SECTION:

Transfer	Title	O* NET	Filters		
From Title:	First-Line Supervisors/Managers of Production and Operating Workers	51-1011.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

OUTPUT SECTION:

Grand TORQ:

90

Ability TORQ				Skills TORQ				Knowledge TORQ			
Level		<div><div></div></div> 95		Level		<div><div></div></div> 82		Level		<div><div></div></div> 93	
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Category Flexibility	46	4	56	Quality Control Analysis	64	6	79	No Knowledge Upgrades Required!			
Near Vision	50	2	59								

LEVEL and IMPT (IMPORTANCE) refer to the Target Inspectors, Testers, Sorters, Samplers, and Weighers. GAP refers to level difference between First-Line Supervisors/Managers of Production and Operating Workers and Inspectors, Testers, Sorters, Samplers, and Weighers.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	First-Line Supervisors/Managers of Production and Operating Workers	Inspectors, Testers, Sorters, Samplers, and Weighers	Importance
Oral Comprehension	55	53	68
Oral Expression	57	51	68
Problem Sensitivity	48	41	59
Near Vision	48	50	59
Written Comprehension	53	50	56
Deductive Reasoning	53	44	56
Category Flexibility	42	46	56
Speech Clarity	48	37	56
Inductive Reasoning	51	44	53



Flexibility of Closure	44	41	53
Speech Recognition	46	35	53
Information Ordering	50	42	50
Selective Attention	50	42	50
Arm-Hand Steadiness	37	37	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	First-Line Supervisors/Managers of Production and Operating Workers	Inspectors, Testers, Sorters, Samplers, and Weighers	Importance
Quality Control Analysis	58	64	79
Reading Comprehension	63	52	74
Active Listening	65	59	73
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	First-Line Supervisors/Managers of Production and Operating Workers	Inspectors, Testers, Sorters, Samplers, and Weighers	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description		First-Line Supervisors/Managers of Production and Operating Workers	Inspectors, Testers, Sorters, Samplers, and Weighers		
Description		First-Line Supervisors/Managers of Production and Operating Workers	Inspectors, Testers, Sorters, Samplers, and Weighers		
10+ years	2%	3%	Doctoral	0%	0%
8-10 years	5%	0%	Professional Degree	0%	0%
6-8 years	12%	0%	Post-Masters Cert	0%	0%
4-6 years	11%	12%	Master's Degree	0%	0%
2-4 years	33%	1%	Post-Bachelor Cert	1%	0%
1-2 years	21%	14%	Bachelors	13%	0%
6-12 months	3%	23%	AA or Equiv	17%	3%
3-6 months	2%	3%	Some College	17%	5%
1-3 months	3%	6%	Post-Secondary Certificate	20%	22%
0-1 month	0%	10%	High School Diploma or GED	26%	61%
None	4%	24%	No HSD or GED	3%	7%
First-Line Supervisors/Managers of Production and Operating Workers			Inspectors, Testers, Sorters, Samplers, and Weighers		
Most Common Educational/Training Requirement:					
Work experience in a related occupation			Moderate-term on-the-job training		
Job Zone Comparison					
3 - Job Zone Three: Medium Preparation Needed			2 - Job Zone Two: Some Preparation Needed		



Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.

These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.

Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Tasks

First-Line Supervisors/Managers of Production and Operating Workers

Core Tasks

Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.
- Coordinating the Work and Activities of Others- Getting members of a group to work together to accomplish tasks.
- Guiding, Directing, and Motivating Subordinates - Providing guidance and direction to subordinates, including setting performance standards and monitoring performance.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.

Specific Tasks

Occupation Specific Tasks:

- Calculate labor and equipment requirements and production specifications, using standard formulas.
- Confer with management or subordinates to resolve worker problems, complaints, or grievances.
- Confer with other supervisors to coordinate operations and activities within or between departments.
- Demonstrate equipment operations and work and safety procedures to new employees, or assign employees to experienced workers for training.
- Determine standards, budgets, production goals, and rates, based on company policies, equipment and labor availability, and workloads.
- Direct and coordinate the activities of

Inspectors, Testers, Sorters, Samplers, and Weighers

Core Tasks

Generalized Work Activities:

- Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Adjust, clean, or repair products or processing equipment to correct defects found during inspections.
- Administer tests to engineers and operators to assess whether they are qualified to use equipment.
- Analyze and interpret blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures, adjustment and certification methods, formulas, and measuring instruments required.
- Analyze test data and make computations as necessary to determine test results.
- Check arriving materials to ensure that they match purchase orders and submit discrepancy reports when problems are found.



employees engaged in the production or processing of goods, such as inspectors, machine setters, and fabricators.

- Enforce safety and sanitation regulations.
- Inspect materials, products, or equipment to detect defects or malfunctions.
- Interpret specifications, blueprints, job orders, and company policies and procedures for workers.
- Maintain operations data such as time, production, and cost records, and prepare management reports of production results.
- Observe work, and monitor gauges, dials, and other indicators to ensure that operators conform to production or processing standards.
- Plan and develop new products and production processes.
- Plan and establish work schedules, assignments, and production sequences to meet production goals.
- Read and analyze charts, work orders, production schedules, and other records and reports, in order to determine production requirements and to evaluate current production estimates and outputs.
- Recommend or implement measures to motivate employees and to improve production methods, equipment performance, product quality, or efficiency.
- Recommend personnel actions such as hirings and promotions.
- Requisition materials, supplies, equipment parts, or repair services.
- Set up and adjust machines and equipment.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- analyze operational or management reports or records
- assign work to staff or employees
- communicate technical information
- compute production, construction, or installation specifications
- conduct or attend staff meetings
- confer with other departmental heads to coordinate activities
- consult with managerial or supervisory personnel
- coordinate production materials, activities or processes
- demonstrate or explain assembly or use of equipment
- determine factors affecting production processes
- develop maintenance schedules
- direct and coordinate activities of workers

round.

- Clean, maintain, repair, and calibrate measuring instruments and test equipment such as dial indicators, fixed gauges, and height gauges.
- Collect or select samples for testing or for use as models.
- Compare colors, shapes, textures, or grades of products or materials with color charts, templates, or samples to verify conformance to standards.
- Compute defect percentages or averages, using formulas and calculators, and prepare reports of inspection or test findings.
- Compute usable amounts of items in shipments and determine prices, based on quantities and grade assessments.
- Disassemble defective parts and components, such as inaccurate or worn gauges and measuring instruments, using hand tools.
- Discard or reject products, materials, and equipment not meeting specifications.
- Discuss inspection results with those responsible for products, and recommend necessary corrective actions.
- Fabricate, install, position, or connect components, parts, finished products, or instruments for testing or operational purposes.
- Grade, classify, and sort products according to sizes, weights, colors, or other specifications.
- Inspect, test, or measure materials, products, installations, and work for conformance to specifications.
- Interpret legal requirements, provide safety information, and recommend compliance procedures to contractors, craft workers, engineers, and property owners.
- Make minor adjustments to equipment, such as turning setscrews to calibrate instruments to required tolerances.
- Mark items with details such as grade and acceptance or rejection status.
- Measure dimensions of products to verify conformance to specifications, using measuring instruments such as rulers, calipers, gauges, or micrometers.
- Notify supervisors and other personnel of production problems, and assist in identifying and correcting these problems.
- Observe and monitor production operations and equipment to ensure conformance to specifications and make or order necessary process or assembly adjustments.
- Position products, components, or parts for testing, or direct other workers to position them.
- Read dials and meters to verify that equipment is functioning at specified levels.



or staff

- establish employee performance standards
- estimate materials or labor requirements
- examine products or work to verify conformance to specifications
- explain rules, policies or regulations
- explain work orders, specifications, or work techniques to workers
- maintain file of job openings
- maintain inventory of office equipment or furniture
- maintain job descriptions
- maintain production or work records
- maintain records, reports, or files
- manage inventories or supplies
- modify work procedures or processes to meet deadlines
- monitor production machinery/equipment operation to detect problems
- monitor worker performance
- motivate workers to achieve work goals
- orient new employees
- oversee work progress to verify safety or conformance to standards
- prepare or maintain employee records
- prepare reports
- read blueprints
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- requisition stock, materials, supplies or equipment
- resolve or assist workers to resolve work problems
- resolve personnel problems or grievances
- schedule activities, classes, or events
- schedule employee work hours
- set up production equipment or machinery
- understand second language
- understand technical operating, service or repair manuals
- use oral or written communication techniques

Technology - Examples

Data base user interface and query software

- Database software
- Oracle software

Electronic mail software

- Email software
- IBM Lotus Notes

levels.

- Record inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded.
- Remove defects, such as chips and burrs, and lap corroded or pitted surfaces.
- Set controls, start and monitor machines that automatically measure, sort, or inspect products.
- Stack and arrange tested products for further processing, shipping, or packaging and transport products to other work stations as necessary.
- Supervise testing or drilling activities.
- Weigh materials, products, containers, or samples to verify packaging weights and ingredient quantities, or to determine sorting.
- Write test and inspection reports describing results, recommendations, and needed repairs.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- collect samples for testing
- communicate technical information
- compare findings with specifications to ensure conformance to standards
- compute product or materials test results
- conduct performance testing
- confer with vendors
- determine specifications
- determine specifications or testing procedures
- direct and coordinate activities of workers or staff
- distinguish colors
- evaluate material specifications
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- grade, classify, or sort products according to specifications
- inspect manufactured products or materials
- install/connect electrical equipment to power circuit
- load, unload, or stack containers, materials, or products



- Microsoft Outlook

Enterprise resource planning ERP software

- Bowen & Groves M1 ERP
- Capterra Enterprise Resource Planning
- Encompix ERP
- Epicor Vantage ERP
- Epicor Vista ERP
- Giraffe Production Systems software
- Intacct ERP software
- Made2Manage software
- Microsoft Axapta
- NetSuite NetERP
- Resource planning software
- Retain Resource Planning
- SAP Business One
- SAP software
- SYSPRO software
- Technology Group International Enterprise 21 ERP

Human resources software

- GHG electronic employee management suite eEMS software

Internet browser software

- Netscape software

Inventory management software

- Inventory management software

Materials requirements planning logistics and supply chain software

- Integrated materials management systems
- Materials management software
- QA Software QMS Materials Management

Office suite software

- Microsoft Office

Presentation software

- Microsoft PowerPoint

Project management software

- Microsoft Total Quality Control Management

- maintain consistent production quality
- maintain inspection tools or equipment
- maintain records, reports, or files
- maintain safe work environment
- mark items for acceptance or rejection, according to conformance to specifications
- measure, weigh, or count products or materials
- modify electrical or electronic equipment or products
- monitor production machinery/equipment operation to detect problems
- monitor repairs or maintenance to enforce standards
- move materials or goods between work areas
- operate industrial or nondestructive testing equipment
- operate packaging or banding machine or equipment
- operate pneumatic test equipment
- operate precision test equipment
- package goods for shipment or storage
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- prepare safety reports
- prepare technical reports or related documentation
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys
- recognize characteristics of metals
- recognize characteristics of pulps
- recognize wood species characteristics
- record test results, test procedures, or inspection data
- sort manufacturing materials or products
- test manufactured products or materials
- understand engineering data or reports
- understand measuring devices
- understand technical operating, service or repair manuals
- use computers to enter, access or retrieve data
- use electrical or electronic test devices or equipment
- use hand or power tools
- use hazardous materials information
- use interpersonal communication techniques
- use knowledge of investigation techniques



- Total quality management TQM software

Spreadsheet software

- Microsoft Excel

- Spreadsheet software

Time accounting software

- Kronos Workforce Timekeeper

- Timekeeping software

- Work Technology WorkTech Time

Word processing software

- Microsoft Word

- Word processing software

Tools - Examples

- Desktop computers

- Personal protective clothing

- Laser printers

- Notebook computers

- Personal computers

- Respirators

- Safety glasses

- Protective shoes

- Laser scanners

- Operator terminals

- use knowledge of metric system
- use long or short term production planning techniques
- use oral or written communication techniques
- use precision measuring tools or equipment
- use quality assurance techniques
- use research methodology procedures within manufacturing or commerce
- use spreadsheet software
- use technical information in manufacturing or industrial activities
- use x-ray or magnetic inspection techniques

Technology - Examples

Analytical or scientific software

- Data analysis software

- Design of experiments DOE software

- Minitab software

- Tolerance analysis software

Computer aided manufacturing CAM software

- Computer-aided inspection software

Industrial control software

- Coordinate measuring machine software

- CyberMetrics GAGETrak Calibration Management Software

- Statistical process control SPC data collection devices

- Wilcox Associates PC-DMIS Inspection Planner

Label making software

- Inspection marking systems

Optical character reader OCR or scanning software

- Label inspection systems

Spreadsheet software

- Microsoft Excel

Word processing software

- Microsoft Word

Tools - Examples

- Accelerometers

- Ammeters

- Industrial bench scales



- | |
|--|
| • Beta gauges |
| • Measuring microscopes |
| • Digital resistance meters |
| • Calipers |
| • Continuity testers |
| • Optical comparators |
| • Compression testers |
| • Conductivity meters |
| • Coordinate measuring machines CMM |
| • Creep and stress relaxation testers |
| • Depth gauges |
| • Ductility testers |
| • Eddy current flaw detectors |
| • Frequency meters |
| • Fatigue testers |
| • Force transducers |
| • Forklifts |
| • Frequency counters |
| • Functional gauges |
| • Hardness testers |
| • Height gauges |
| • Hipot testers |
| • Hydraulic pumps |
| • Impact hammers |
| • Impact toughness testers |
| • Return loss calibrator RLC passive component testers |
| • Backplane testers |
| • Holographic interferometers |
| • Laser shearography flaw detectors |
| • Bubble leak testers |
| • Pulse generators |
| • Hydraulic lifts |



- Penetrant flaw detectors
- Magnetic particle flaw detectors
- Metallurgical microscopes
- Micrometers
- Moisture meters
- Digital multimeters
- Bit error rate BER testers
- Sampling oscilloscopes
- Personal computers
- Plotters
- Direct current DC power testers
- Gloss meters
- Environmental chambers
- Digital thermometers
- Pi tapes
- Shear testers
- Shock testers
- Linear or mixed signal equipment
- Function generators
- Sorting machines
- Color spectrometers
- Strain gauges
- Tensile testers
- Laser thickness gauges
- Thread gauges
- Overhead cranes
- Ultrasonic flaw detectors
- Vibration and shaker systems
- Viscometers
- Digital voltmeters DVM
- Radiographic flaw detectors

Labor Market Comparison

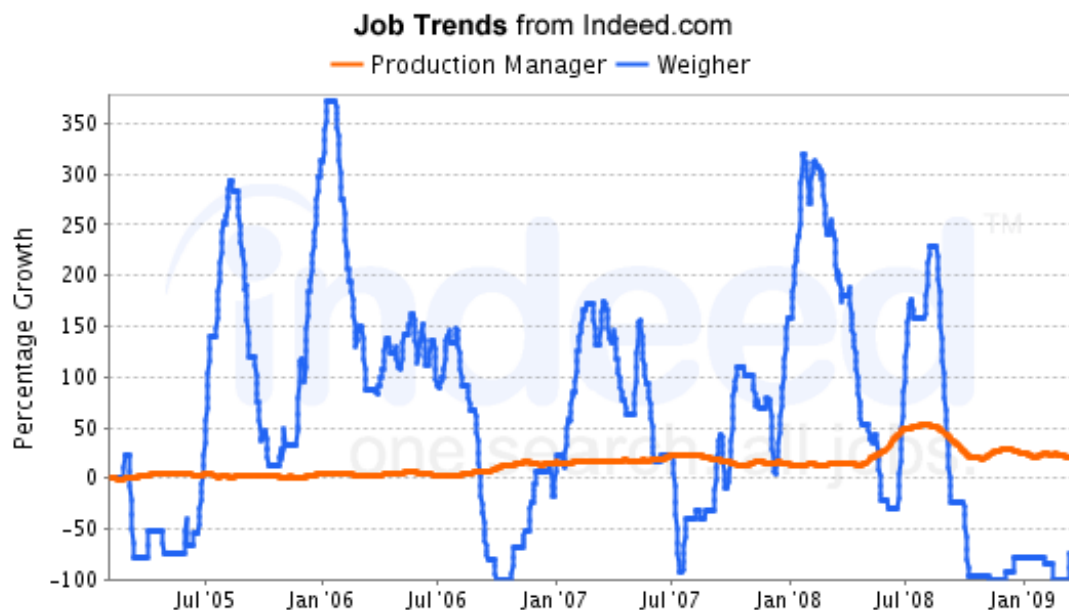


Description	First-Line Supervisors/Managers of Production and Operating Workers	Inspectors, Testers, Sorters, Samplers, and Weighers	Difference
Median Wage	\$ 45,510	\$ 29,700	\$(15,810)
10th Percentile Wage	\$ 28,000	\$ 19,620	\$(8,380)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 58,890	\$ 40,300	\$(18,590)
90th Percentile Wage	\$ 73,810	\$ 48,960	\$(24,850)
Mean Wage	\$ 48,010	\$ 31,870	\$(16,140)
Total Employment - 2007	3,750	1,700	-2,050
Employment Base - 2006	3,893	1,720	-2,173
Projected Employment - 2016	3,745	1,473	-2,272
Projected Job Growth - 2006-2016	-3.8 %	-14.4 %	-10.6 %
Projected Annual Openings - 2006-2016	65	26	-39

National Job Posting Trends

Trend for First-Line Supervisors/Managers of Production and Operating Workers

Trend for Inspectors, Testers, Sorters, Samplers, and Weighers

Data from [Indeed](http://Indeed.com)

Recommended Programs

Electromechanical Tech./Technician

Electromechanical Technology/Electromechanical Engineering Technology. A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing and testing automated, servomechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures, and report preparation.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu

Industrial Production Technol./Technicians, Other

Industrial Production Technologies/Technicians, Other. Any instructional program in industrial production technologies not listed above.

No schools available for the program

Quality Control Tech./Technician

Quality Control Technology/Technician. A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in maintaining consistent manufacturing and construction standards. Includes instruction in quality control systems management principles, technical standards applicable to specific engineering and manufacturing projects, testing procedures, inspection procedures, related instrumentation and equipment operation and maintenance, and report preparation.

No schools available for the program

Machinist/Machine Technologist

Machine Tool Technology/Machinist. A program that prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu



Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
Southern Maine Community College	2 Fort Road	South Portland	www.smccME.edu
Machine Shop Assistant			
Machine Shop Technology/Assistant. A program that prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts in support of other manufacturing, repair or design activities, or as an independent business.			
No schools available for the program			
Sheet Metal Worker			
Sheet Metal Technology/Sheetworking. A program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.			
Institution	Address	City	URL
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
Precision Metal Workers, Other			
Precision Metal Working, Other. Any instructional program in precision metal work not listed above.			
No schools available for the program			

Maine Statewide Promotion Opportunities for First-Line Supervisors/Managers of Production and Operating Workers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings
51-1011.00	First-Line Supervisors/Managers of Production and Operating Workers	100	3	3,750	\$45,510.00	\$0.00	-4%	65
11-3051.00	Industrial Production Managers	90	4	690	\$72,560.00	\$27,050.00	-12%	24
11-3071.02	Storage and Distribution Managers	89	3	710	\$62,270.00	\$16,760.00	5%	25
17-3026.00	Industrial Engineering Technicians	88	3	370	\$51,700.00	\$6,190.00	6%	9
11-9131.00	Postmasters and Mail Superintendents	87	3	420	\$55,200.00	\$9,690.00	-5%	10
11-3061.00	Purchasing Managers	83	4	330	\$72,560.00	\$27,050.00	2%	11



47-1011.00	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	83	3	3,190	\$46,630.00	\$1,120.00	3%	77
11-3071.01	Transportation Managers	83	3	710	\$62,270.00	\$16,760.00	5%	25
25-1194.00	Vocational Education Teachers, Postsecondary	83	4	0	\$47,550.00	\$2,040.00	51%	20
11-3042.00	Training and Development Managers	82	4	140	\$66,670.00	\$21,160.00	7%	4
41-1012.00	First-Line Supervisors/Managers of Non-Retail Sales Workers	82	4	930	\$55,220.00	\$9,710.00	-1%	19
49-1011.00	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	82	4	2,490	\$46,810.00	\$1,300.00	0%	60
11-3011.00	Administrative Services Managers	82	4	1,090	\$56,630.00	\$11,120.00	5%	34
51-8012.00	Power Distributors and Dispatchers	82	4	0	\$47,720.00	\$2,210.00	0%	0
11-9011.01	Nursery and Greenhouse Managers	82	4	30	\$60,610.00	\$15,100.00	20%	15

Top Industries for Inspectors, Testers, Sorters, Samplers, and Weighers

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Employment services	561300	7.50%	36,864	43,994	19.34%
Motor vehicle parts manufacturing	336300	4.66%	22,903	17,193	-24.93%
Plastics product manufacturing	326100	4.23%	20,797	20,787	-0.05%
Semiconductor and other electronic component manufacturing	334400	3.70%	18,159	14,967	-17.58%
Aerospace product and parts manufacturing	336400	3.32%	16,315	15,667	-3.97%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.17%	10,680	9,641	-9.72%
Medical equipment and supplies manufacturing	339100	1.87%	9,177	8,852	-3.55%
Pharmaceutical and medicine manufacturing	325400	1.80%	8,824	10,486	18.84%
Animal slaughtering and processing	311600	1.79%	8,815	9,486	7.62%
Other fabricated metal product manufacturing	332900	1.78%	8,731	7,295	-16.45%
Rubber product manufacturing	326200	1.70%	8,331	5,547	-33.41%
Testing laboratories	541380	1.48%	7,249	8,416	16.10%



Self-employed workers, primary job	000601	1.48%	7,279	7,313	0.46%
Foundries	331500	1.45%	7,125	4,872	-31.63%
Printing and related support activities	323100	1.40%	6,856	5,122	-25.29%

Top Industries for First-Line Supervisors/Managers of Production and Operating Workers

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Plastics product manufacturing	326100	4.03%	28,154	29,844	6.00%
Printing and related support activities	323100	3.61%	25,224	19,985	-20.77%
Motor vehicle parts manufacturing	336300	3.08%	21,518	17,131	-20.39%
Architectural and structural metals manufacturing	332300	2.52%	17,595	18,792	6.80%
Self-employed workers, primary job	000601	2.40%	16,779	17,876	6.54%
Grocery stores	445100	2.37%	16,559	18,067	9.11%
Animal slaughtering and processing	311600	2.24%	15,642	17,851	14.13%
Local government, excluding education and hospitals	939300	2.07%	14,471	16,257	12.34%
Machine shops	332710	1.99%	13,948	11,538	-17.28%
Converted paper product manufacturing	322200	1.89%	13,212	11,088	-16.08%
Semiconductor and other electronic component manufacturing	334400	1.88%	13,126	11,473	-12.59%
Drycleaning and laundry services	812300	1.75%	12,216	12,217	0.01%
Other wood product manufacturing	321900	1.64%	11,463	10,802	-5.77%
Other fabricated metal product manufacturing	332900	1.57%	10,950	9,702	-11.39%
Other general purpose machinery manufacturing	333900	1.41%	9,879	8,918	-9.73%